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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,964	09/16/2005	Haruhisa Toyoda	20239/0203036-US0	8313
7278 7590 07/23/2008 DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770				
EXAMINER SHEEHAN, JOHN P				
ART UNIT		PAPER NUMBER		
1793				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/549,964

**Applicant(s)**

TOYODA ET AL.

**Examiner**

John P. Sheehan

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Claim Interpretation**

1. Claims 1 to 11 recite "crystals having an average size...of at least 30 nm" (for example, claim 1, lines 4 and 5). In view of the fact that these claims recite a minimum crystal size with no upper limit, these claims encompass any crystal size of 30 nm or greater, for example 50 nm,...50 microns, 150 microns, 200 microns, etc.
2. In like manner, claims 1 to 8 and 11 recite crystal grains "having an average size of at least 10 microns" (for example, claim 1, the last line). In view of the fact that these claims recite a minimum crystal grain size with no upper limit, these claims encompass any crystal grain size of 10 microns or greater. Thus, claims 1 to 8 and 11 encompass any crystal grain size of 10 microns or greater, for example 20 microns,...50 microns, 150 microns, 200 microns, etc.
3. In view of the claim language, "crystal grains having an average size of at least 10 and no more than 300 microns" (claim 10, the last 2 lines), claim 10 encompasses crystal grains having an average size of 10 to 300 microns.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

I. In claim 10, the last 2 lines, the upper limit for the crystal grain size of "no more than 300 microns" does not find support in the application as filed. There is no support that the upper limit of the crystal grain size is 300 microns. Although applicants have cited several sections of the specification in support of new claim 10, none of the cited sections of the specification support the crystal grain size upper limit of "no more than 300 microns". On page 2, paragraph [0023] of the applicants' specification, the limitation of "no more than 300 microns" is disclosed in reference to the "average particle diameter of the metal magnetic particles" but not in reference to the "crystal grain" size recited in claim 10.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 to 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukada et al. (Tsukada '636, US Patent No. 5,800,636, cited by the Examiner).

Tsukada '636 teaches a soft magnetic iron powder with a particle size of 75 to 200 microns (column 6, lines 26 to 32) that is encompassed by the claims. Tsukada '636 teaches that the disclosed iron powder is used to make cores (column 2, lines 30 to 36) as recited in applicants' claim 5. Tsukada '636 teaches that the disclosed iron powder is coated with a binder and an insulator (column 2, lines 30 to 36, column 9, lines 60 to 65 and Example 1) as recited in each of claims 3, 4, 6 and 7. The binder taught by Tsukada '636 provides insulation as recited in claim 11 (column 9, lines 62 to 65). Tsukada '636's insulation/binder has a thickness of 50 to 160 nm (0.02 to 0.16 microns) which is encompassed by applicants' claim 11 (column 9, lines 61 and 62).

The claims and Tsukada '636 differ in that Tsukada '636 is silent with respect to the average crystal size and the average crystal grain size and thus does not limit the crystal size and crystal grain size of the disclosed metal powder.

However one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious. As set forth above under the heading, "Claim Interpretation" claims 1 to 11 encompass any crystal size of 30 nm or greater, for example 50 nm,...50 microns, 150 microns, 200 microns, etc and claims 1 to 8 and 11 encompass any crystal grain size of 10 microns or greater, for example 20 microns,...50 microns, 150 microns, 200 microns, etc. and claim 10 encompasses crystal grains having an average size of 10 to 300 microns. In view of this interpretation of the upper limits of the claimed crystal size and crystal grain size, the fact that

Tsukada '636 teaches a particle size of 75 to 200 microns and the fact that the crystal size and crystal grain size of a metal powder such as Tsukada '636's metal powder cannot exceed the size of the powder particle, Tsukada '636 is considered to teach a metal powder having a crystal size and crystal grain size that overlaps the crystal size and crystal grain size recited in the instant claims.

### ***Response to Arguments***

8. Applicant's arguments filed April 11, 2008 have been fully considered but they are not persuasive.
9. Applicants' argument that Tsukada '636 does not disclose or encourage an average crystal size as small as 10 microns is not persuasive. First, it is noted that applicants' argument is directed to an average crystal size as small as 10 microns, however 10 microns is the claimed lower limit for the crystal grain size and not the crystal size. This aside, as set forth above under the heading, "Claim Interpretation" claims 1 to 11 encompass any crystal size of 30 nm or greater, for example 50 nm,...50 microns, 150 microns, 200 microns, etc and claims 1 to 8 and 11 encompass any crystal grain size of 10 microns or greater, for example 20 microns,...50 microns, 150 microns, 200 microns, etc. and claim 10 encompasses crystal grains having an average size of 10 to 300 microns. Thus, the claims are not limited to small crystal sizes as applicants have argued.

10. Applicants' arguments regarding particle size are not persuasive in the claims recite only the crystal size and the crystal grain size and are silent with respect to the particle size of the claimed powder.

11. Applicants' arguments that the particle size and particle properties of the claimed powder cannot be obtained by Tsukada '636's disclosed process is not persuasive. Applicants' have not provided any evidence in support of their position. However, "[i]t is well settled that unexpected results must be established by factual evidence. Mere argument or conclusory statements in the specification do not suffice." In re Deblauwe, 222 USPQ 191, 196 (Fed. Cir. 1984). Mere lawyer's arguments and conclusory statements in the specification, unsupported by objective evidence, are insufficient to establish unexpected results." In re Wood, Whittaker, Stirling and Ohta, 199 USPQ 137, 140 (CCPA 1978). Applicants' arguments cannot take the place of evidence in the record, MPEP 716.01(c)II.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 1793

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (7:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Application/Control Number: 10/549,964

Page 8

Art Unit: 1793

/John P. Sheehan/

Primary Examiner, Art Unit 1793